

CLAIMS

1. An apparatus for thixocasting a cast iron, comprising at least a pair of dies that can freely open and close so as to form a cavity which is to be filled with semi-molten cast iron under a pressure and injection means that injects the semi-molten injected material into the cavity through an injection path, while the gate is provided at the entry of the cavity so as to throttle the entry, wherein the gate is constituted from a separate gate member and is disposed at the entry of the cavity every time injection casting operation is carried out and is taken out together with the casting after the injection casting operation.
2. The apparatus for thixocasting a cast iron according to claim 1, wherein the gate member has a projecting portion formed to a certain extent around the gate hole facing the injection path.
3. A method of thixocasting a cast iron, which comprises filling a cavity in dies with semi-molten cast iron that is injected through a gate that throttle the entry of the cavity under a pressure, wherein the injected material is covered on the circumference thereof by a steel sheet 0.2 to 0.5 mm thick that has a melting point higher than that of the injected material.